

### Opener

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i) Passes through A(3,9) and B(6,4)

ii) A slope of  $+3/4$  and passes through A(3,6)

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### Graphing Using the Intercepts

- when an equation is in Two Variable  
Format - graph using two points

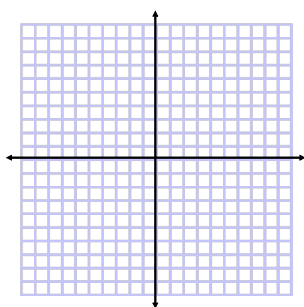
$$3x + 4y = 24$$

Sub in  $x=0$

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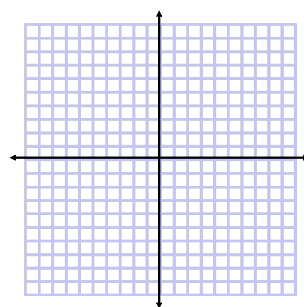
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### Solving Problems Involving Equations and Formulas

#### Using Equation Solving Skills to Switch Between Slope/Y- intercept Form and Standard Form of Linear Equations

A line can be expressed in a number of algebraic forms. Two of them are identified below.

#### 1. Slope/Y-intercept form

$$y = mx + b$$

$$(\text{sample } y = 4x - 5)$$

#### 2. Standard form

$$Ax + By + C = 0$$

$$(\text{sample } 3x + 4y - 7 = 0)$$

We want to be able to use our equation solving skills to switch between the two forms.

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#### It is important to note that the main difference between the two forms is that...

- in the standard form all of the terms are on the left hand side of the equation. ( $3x + 4y - 7 = 0$ )
- In the slope y-intercept form the y is isolated. ( $y = 4x - 5$ )

#### Example

A line is described by the equation below. Express this standard form linear equation in slope y-intercept form.

$$12x + 4y - 2 = 0$$

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2. Isolate the y variable.

$$12x + 4y - 2 = 0$$

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Express in Standard Notation

$$y = \frac{3}{4}x + 16$$

Standard Form

A value must be whole number & positive

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Homework

Complete Gold Sheet

MPM 1D Final Exam Review Sheet

Feb 8-9:01 AM

If the line  $2x + 4y + C = 0$  passes through  $(2, 4)$ , determine the value of C.

Feb 21-7:29 PM